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10/747,957	12/31/2003	Hiromichi Yoshikawa	086142-0603	6957

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EXAMINER

SPISICH, GEORGE D

ART UNIT	PAPER NUMBER
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3616

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/16/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.



## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,2 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Hiroaki et al. (Figure 47) (USPUB 2001/011810) provided in Applicant's IDS.

Hiroaki et al. discloses an occupant protection system (shown in Fig. 47) which prevents submarining of an occupant seated in a seat of a vehicle and having an airbag (630) disposed between a seat cushion and a seat pan (shown in Figs. 4-5B) and extending longitudinally along the width of the seat, wherein the airbag is configured to inflate to thereby push up the front of the seat cushion from below and a bag enclosure (632A) extending longitudinally and enclosing an intermediate part of the airbag.

The bag enclosure encloses the airbag and is at the longitudinal center of the airbag. The perimeter of the enclosure (632A) is smaller than the perimeter of the airbag in an inflated condition. The unrestricted portions of the airbag extend to beyond the bag enclosure in a fully inflated condition and not enclosed by the bag enclosure. From page 16 of the specification, paragraphs [267] – [270], it is disclosed the purpose and operation of the bag enclosure (632A). The enclosure restrains the airbag in a fully inflated state. Some of the bag enclosure may rupture at the seam, and as a passenger

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impacts the airbag and the pressure is increased, the bag enclosure may rupture further. It is understood from this disclosure that the bag enclosure allows for and operates in a manner to allow the airbag to expand so as to have a larger perimeter in a fully inflated state than the bag enclosure.

The bag enclosure is connected to the seat pan (via mounting holes 46) to restrict forward motion of the airbag when inflated and the airbag is positioned in a recess (42a) in the seat pan wherein the recess extends along the width of the seat. There is a step surface (portion of the recess) extending along a front rim of the recess to further prevent the airbag from moving forward when an occupant applies pressure to the airbag.

The relative position of the airbag(s) lifts the front of the seat and to at least some degree would also lift a side of the vehicle seat or at least a front/side corner of the vehicle as in Applicant's invention.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hiroaki et al. (Fig. 47)(USPUB 2001/0011810).

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Hiroaki et al. has been discussed in the prior rejection. However, the size of the bag enclosure does not appear to be disclosed or shown as “substantially the entire airbag”, “from forty to about one hundred percent” or “about fifty to about ninety percent” of the longitudinal length of the airbag.

The relative size of the bag enclosure (632A) is a dimension that one of ordinary skill in the art would be able to optimize or change. Since Hiroaki et al. discloses a bag enclosure having a relatively broad width, it would have been obvious to one of ordinary skill in the art at the time the invention was made to broaden the bag enclosure to provide increased bag restraint. To increase the size to about forty or about fifty or slightly over fifty percent of the longitudinal length of the airbag would be within the scope of one of ordinary skill in the art to vary the effective restraint of the airbag. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

With respect to the terms “substantially the entire” (claim 4), and “about one hundred percent” (claim 6), Examiner points out that the term “substantially” is met by being a majority (or about 51%) of a dimension. Furthermore, Examiner states that Applicant has not disclosed a bag enclosure that encloses the entire airbag or one that is “about one hundred percent”. Also, it is likely that these limitations, if positively claimed, would not allow the airbag to have a larger perimeter than the bag enclosure in a fully inflated state and therefore conflict with limitations in the claim from which they depend.

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Claims 1,2,8-12,14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art shown in Figure 4 (AAPA) in view of Hiroaki et al. (Fig. 47) (USPUB 2001/0011810).

AAPA discloses an occupant protection system which prevents submarining of an occupant seated in a seat of a vehicle and having an airbag (44) disposed between a seat cushion (42) and a seat pan (40) and extending longitudinally along the width of the seat, wherein the airbag is configured to inflate to thereby push up the front of the seat cushion from below.

AAPA discloses a gas generator (46) disposed in the airbag and fastened to the seat pan by a fastener (extension beneath the seat pan) passing through the airbag. The airbag is "sandwiched" between the gas generator and the seat pan.

The relative position of the airbag of AAPA lifts the front of the seat and to at least some degree would also lift a side of the vehicle seat or at least a front/side corner of the vehicle as in Applicant's invention.

However, AAPA does not disclose a bag enclosure for enclosing the airbag.

Hiroaki et al. has been discussed in a prior rejection and discloses a bag enclosure (632A) for restraining and containing the airbag.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the airbag arrangement of AAPA by providing a bag enclosure as taught by Hiroaki et al. so as to provide an airbag arrangement that more efficiently restrains movement and absorbs impact energy. In this combined airbag

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arrangement, the bag enclosure of Hiroaki et al. would be connected to the seat pan since the entire arrangement is connected to the seat pan.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA in view of Hiroaki et al. as applied to claims 1,2,8-12,14 and 16 above, and further in view of Stanger et al. (USPN 5,979,929).

AAPA in view of Hiroaki et al. has been presented in the prior rejection but does not disclose a cover (in addition to a bag enclosure) for covering the airbag, wherein the cover is configured to be broken or "deformed" when the airbag inflates.

Stanger et al. discloses an airbag arrangement having a cover (30) that is broken or "deformed" when the airbag inflates. This cover is considered a dust cover and seals and protects the airbag arrangement when installed in a vehicle. The teaching of this reference is to provide a "cover" for an airbag arrangement and the particulars of the airbag use is not of importance as a cover is taught by Stanger et al. for any airbag arrangement.

It would have been obvious to one of ordinary skill in the art at the time the invention was made provide a cover as taught by Stanger et al. in the arrangement of AAPA in view of Hiroaki et al. so as to provide a protected and sealed cavity for the airbag while allowing still allowing the proper inflation of the airbag.

### ***Response to Arguments***

Applicant's arguments filed January 25, 2007 have been fully considered but they are not persuasive.

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With respect to Applicant's argument that the bag enclosure of Saiguchi would not have a smaller perimeter than the airbag when the airbag is in a "fully inflated state", Examiner disagrees and maintains the rejection. Examiner reads the Saiguchi invention to be "fully inflated", at which point the restraint/bag enclosure would likely rupture to a degree yet not fully (as shown in Fig. 47) and would still restrain an intermediate portion of the bag such that the perimeter of the bag enclosure would be smaller than the outer portions of the bag in the "fully inflated state". Mostly likely, as the occupant impacts the bag (and as disclosed by Saiguchi), the restraint/bag enclosure would rupture further (yet possibly still not completely, depending on the forces), due to the increased pressure in the bag. Saiguchi reads on the limitation that the bag enclosure is smaller in perimeter when the bag is in the fully inflated state. The term "fully inflated state" merely means when the bag is inflated to its fullest extent. Should the enclosure fully rupture after impact with the occupant does not prevent the restraint from still being considered to read on Applicant's claimed invention "in a fully inflated state" of the airbag.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the



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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to George D. Spisich whose telephone number is (571) 272-6676. The examiner can normally be reached on Monday-Friday 9:00 to 6:30 except alt. Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on (571) 272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

George D. Spisich  
April 10, 2007



  
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